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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,503	12/26/2001	Michel J. Korwin	145-02 US	7871
25319	7590	09/17/2004	EXAMINER	
FREEDMAN & ASSOCIATES 117 CENTREPOINTE DRIVE SUITE 350 NEPEAN, ONTARIO, K2G 5X3 CANADA			KASTLER, SCOTT R	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/025,503	KORWIN ET AL.	
	Examiner	Art Unit	
	Scott Kastler	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-7,10,12-22,24 and 26-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7,10,12-22,24 and 26-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/24/03</u> . | 6) <input type="checkbox"/> Other: _____  |

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8-24-2004 has been entered.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 26-31 are rejected under 35 U.S.C. 102(a) as being anticipated by Hosokawa.

Hosokawa, in the embodiment of figure 1 for example, teaches a process for the thermal processing of a workpiece including providing workpieces (wafers) to a first thermochemical processing cell (24, 26, 28 or 36) from a common chamber (20 or 32) which contains an atmosphere other than ambient, processing the workpiece for a portion of a first thermochemical process, then transferring the workpiece to other cells (see col. 1 paragraph [0005] for example) for finishing the thermochemical processing, while other workpieces are undergoing separate processing in other cells of the apparatus, hereby showing all aspects of the above claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-7, 10, 12-14, 16-22, 24 and 26-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pelisser in view of Hosokawa. Pelisser teaches a multi-cell thermal processing unit (6) including an air tight expandable common chamber or chambers (10, 10') including a non-ambient atmosphere (the rarefied atmosphere of col. 1 line 35 for example), a loading cell (15) linked to the common chamber by a gas tight door (15-1), a number (N) ports on the common chamber (10), first, second and third processing cells (14, 14, 14') comprising heating and quenching (cooling) cells including heat insulating doors (see col. 2 line 40 for example) a transport mechanism (18,22) and air tight sealing covers (12,15-1 and 16-1), thereby showing all aspects of the above claims except the inclusion of a processor in control communication with the thermal processing cells and transport mechanism, since the claims as presently written do not exclude vacuum furnaces as disclosed by Pelisser, which also contain non-ambient atmospheres. Hosokawa teaches that at the time the invention was made, it was known in the art to employ a processor (38) in communication with both the transfer means and the processing cells in order to effectively control the thermal treatment process (see col. 1 paragraph [0005] for example). Because improved process control would also be desirable in the system described by Pelisser, motivation to include the processor taught by Hosokawa, in the system described by Pelisser, in order to more effectively operate and control the thermal

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processing of the workpieces, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

Claims 1-3, 5-7, 10, 12-14, 16-22, 24 and 26-34 rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese'535, in view of Hosokawa. Japanese'535 teaches a multi-cell thermal processing unit (see drawings 1, 3 and 5 for example) including an air tight expandable common chamber or chambers (2) including a non-ambient atmosphere (see paragraph [0009] of the English language translation of the detailed description for example), a loading cell (1) linked to the common chamber by a gas tight door (see Example 1 for example), a number (N) ports on the common chamber (2), first, second and third processing cells (4-7 for example) comprising heating and quenching (cooling) cells including heat insulating doors (see Example 1 for example) a transport mechanism (3) and air tight sealing covers (Example 1 for example), thereby showing all aspects of the above claims except the inclusion of a processor in control communication with the thermal processing cells and transport mechanism. Hosokawa teaches that at the time the invention was made, it was known in the art to employ a processor (38) in communication with both the transfer means and the processing cells in order to effectively control the thermal treatment process (see col. 1 paragraph [0005] for example). Because improved process control would also be desirable in the system described by Japanese'535, motivation to include the processor taught by Hosokawa, in the system described by Japanese'535, in order to more effectively operate and control the thermal processing of the workpieces, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

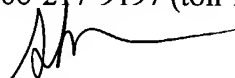
***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Maydan et al is also cited as a further example of prior art multi-cell thermal treatment furnaces.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (571) 272-1243. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Scott Kastler  
Primary Examiner  
Art Unit 1742

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